

REMARKS/ARGUMENTS

Claims 1, 3-5, 7-9, and 11-15 are pending in the application. Claims 1, 5, and 9 have been amended. Support for the claims can be found in the specification as originally filed. No new matter has been introduced by virtue of these amendments.

Claims 1, 3-5, 7-9, and 11-15 were rejected under 35 U.S.C. §102(e) as being anticipated by Yanai et al. (U.S. Patent No. 6,502,205). These claim rejections are overcome as follows.

The undersigned would like to thank the examiner for granting an interview to discuss the case on short notice. The interview was conducted on January 11, 2007. The reference was and proposed claim amendments were discussed, though no agreement was reached. The examiner also noted that claim 1 was likely to be subject to rejection under 35 U.S.C. Section 101 for statutory subject matter issues, and suggested that the claim should be amended to address that possibility. In response, claim 1 has been amended accordingly.

Embodiments in accordance with the present invention relate to displaying a real time update regarding any obstructions in communication paths of an information processing device. The present invention detects occurrence(s) of failed communication path(s), updates the state of the path(s) from "online" to "offline", and removes the obstruction. *See, e.g., page 33, lines 10-28 of the present specification.*

Accordingly, independent claim 1 has been amended to recite the feature of "code for said host computer to change said display contents concerned with said state of said communication path from said on-line state into said off-line state in which failure has occurred among displayed plurality of communication paths based on receiving failure information from said storage device, while a failure has occurred in any one of said displayed plurality of communication paths." Independent claims 5 and 9 recite similar features as that of independent claim 1.

In other words, the following features are not disclosed in the Yanai reference:

(1) the host computer changes the display of the state of the communication path from on-line to off-line; and

(2) identifying failure occurring to any of the communication paths, wherein the communication path comprises the host port of said information processing device, the communication cable connected to the host port, and the disk controller port of the disk controller to which the communication cable is also connected.

The Yanai reference is directed to a system-based recovery from a site failure. The Yanai reference, cited by the examiner at column 15, lines 42-54, discloses that "if the data storage system containing the primary (R1) volume does not receive acknowledgement of a successful transfer from the other data storage system within a timeout period or another failure occurs that prevents the data transfer, the data storage system containing the primary (R1) volume sends a 'unit check' with appropriate sense bytes to the host" (Emphasis added). Here, when a data transfer failure occurs, the primary data storage system sends a check to the host. The Yanai reference does not teach any specifics as to the host responding to the failed data transfer. The Yanai reference merely teaches that the primary volume sends a re-check request to the host, to verify that the data transfer is unsuccessful. Yanai talks about failed data transfer, or a data transfer being unsuccessful, whereas the claims explicitly recited "failure occurring to any of the communication paths" and "changes the display of the state of the communication path from on-line to off-line." Yanai does not teach these specific limitations. For at least this reason, the Section 102 rejection is believed to be overcome.

Specifically, Yanai does not show the recited "communication path" comprising a host port, a communication cable connected to the host port, and the disk controller port of a disk controller to which the communication cable is also connected. See, for example, the embodiment exemplar of Fig. 2 in the instant specification.

The Yanai reference does not disclose that the host is configured to change the display of state of a communication path from on-line to off-line. While the Yanai reference discloses that the data processing system can be configured and monitored from a user interface of the host central processing unit (see column 12, lines 65-66), the Yanai reference does not provide any specifics as to changing the display of the state of the communication paths. The Yanai reference concentrates on the recovery of a site failure, and is not directed to recovery of communication paths, which is one feature of the present invention. In fact, Applicant asserts

that when the site failure occurs, the host computer is presumed to fail as well. It is therefore not even possible for the host computer to display the occurrence of such a failure mode.

This point is fully supported on column 32, lines 1-27 of the Yanai reference. In this section, the Yanai reference states that "when a disaster at a local site *renders all equipment non-operational*...when the data storage system at the local site is ready to be brought back online, recovery can be performed by setting channel interfaces to online, and powering-up the local data storage system...the data storage system sends an operator message to its host when a volume has resynchronized." (emphasis added). Here, the Yanai reference focuses on the failure of a local site, and does not deal with response to any failed communication links or what the host does in response to any failed communication links.

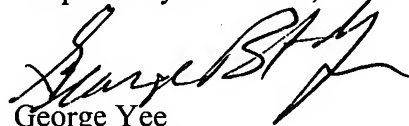
Based upon the failure of the Yanai reference to disclose each and every element of the pending claims, it is respectfully asserted that claims 1, 3-5, 7-9, and 11-15 are patentable. The Section 102 rejection of the claims is believed to be overcome.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,


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